

## Secondary school students' conceptions of assessment and feedback

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### Abstract

This study investigated secondary school students' conceptions of assessment and feedback. Five focus groups were conducted with 41 Year 9 and 10 students (equivalent to Grades 8 and 9 in other countries) from 4 diverse New Zealand schools. Students said that assessment was useful because it led to information and feedback. This information, in the right form, could help students and, to a lesser extent, teachers improve and it could be used to show progress to parents and employers. If assessment and feedback did not provide this information it was irrelevant. There was no indication that students thought assessment or feedback could make them or their school accountable, but some indication that teachers were accountable for student learning.

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### 1. Introduction

Educational conceptions play an important role in the way individuals perceive the learning environment and these conceptions influence the way they behave, study, learn and ultimately their academic outcomes (Elen & Lowyck, 1999; Vermetten, Vermunt, & Lodewijks, 2002). Unproductive conceptions reduce the effectiveness of educational interventions, instructions and tasks (Fransson, 1977; Vermetten et al.). While a learning environment may be designed to facilitate change on a given variable (e.g., increase literacy), students do not always perceive the environment in the intended way.

Numerous education-related conceptions have been investigated including learning, knowledge, curriculum, instruction, and teaching. However, research into conceptions of the overall *purpose* of assessment and feedback, especially from a secondary school student's perspective, has been largely ignored.

#### 1.1. Assessment

According to Hornby (2003), assessment has four main roles: (a) *summative*, to provide information about attainment at the end of the course, (b) *formative*, to provide support for future learning, (c) *certificating*, to enable selection

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based on a qualification, and (d) *evaluative*, to provide a way for stakeholders (e.g., parents, teachers, schools) to judge the success of the system overall. However, assessment plays other important and sometimes unintentional roles as well. For example, assessment affects *what* and *how* students learn (Dochy & McDowell, 1997), student motivation (Brookhart & Bronowicz, 2003), and sense of self and well-being (Black et al., 2002; Black & Wiliam, 1998a, 1998b).

Brookhart and Bronowicz (2003) investigated junior and high school students' perceptions of classroom assessment and found that, regardless of grade or assessment type, students' comments about assessment revolved around their own interests and needs. The potential value of assessment for teachers, parents and the community was not overtly recognised.

Zeidner's (1992) study with junior and high school students looked at the perceived importance of assessment, specifically grades. Students ranked summarising student achievement as the most important goal of grading, followed by increasing student interest and motivation, evaluating teaching quality and, finally, administrative purposes.

Students' conceptions of assessment are believed to vary with age as well as gender (Black et al., 2002). The biggest changes are at transitions from primary to secondary school (Moni, van Kraayenoord, & Baker, 2002) and secondary to tertiary (Thomas, Bol, & Warkentin, 1991) due to students encountering different assessment purposes, routines and procedures. Moni et al. found that secondary students' conceptions do not develop in uniform ways towards a shared understanding. For example, some students interpreted an assessment task sheet as something for the teacher to help explain the task, while others saw it as a guide on how to obtain good marks.

To date most of the research related to conceptions of assessment has focused on tertiary students and on how these conceptions affect study behaviours (e.g., Sambell & McDowell, 1998; Gijbels & Dochy, 2006), perceptions of assessment criteria, techniques or requirements (e.g., Brookhart & Bronowicz, 2003; Sambell, McDowell, & Brown, 1997), perceptions of the value and importance of assessment, or preferred mode of assessment (e.g., Birenbaum, 1994; Brookhart & Bronowicz; Zeidner, 1992). Little research has stepped back and asked the more global question about the *overarching purposes* of assessment. Hence, while teachers, teacher educators, politicians and policy makers may be aware of the multiple purposes of assessment typically espoused in textbooks (e.g., assessment for accountability, qualifications, appraisal, curriculum evaluation, feedback to stakeholders, and improving teaching and learning), whether students, especially secondary students, are aware of these purposes and what aspects they prioritise, needs more investigation.

Brown's (2004) Conceptions of Assessment inventory (COA-III) for teachers, which is based on opinions about assessment expressed in the literature, is a step in this direction. The COA-III identified four major conceptions about the purpose of assessment among New Zealand primary school teachers, namely, assessment is (a) for improvement of teaching and learning; (b) for student accountability; (c) for school accountability; and (d) irrelevant. Replication of these studies with secondary school students (Brown & Hirschfeld, 2005) found that secondary students' conceptions of assessment contained purposes related to making students accountable, making schools accountable and being ignored (irrelevant), as well as a factor relating to assessment is fun. While this work is promising, the questionnaire items were drawn from the literature and constructed for use with teachers. More research, grounded in the student voice, is needed to ascertain what students think is the purpose of assessment.

## 1.2. Feedback

Feedback is performance information that is given to promote learning and change at a cognitive and behavioural level (Mory, 1992). Depending on whether the feedback matches the learner's expectations about their performance, feedback can confirm existing beliefs, add information, overwrite existing beliefs, tune understandings or lead to the restructuring of schemata and existing beliefs (Butler & Winne, 1995).

Knight (2003) argues that definitions of feedback can be placed on a continuum. At one end is a broad view, which defines feedback as all dialogue to support learning (Askew & Lodge, 2000). This view is also taken by researchers such as Butler and Winne (1995) and Carver and Scheier (1990), who acknowledge the multiple roles feedback plays in mediating not only a learner's academic performance, but also internal processes such as the learner's knowledge and beliefs, goal setting processes, strategy use and self-regulated learning. In the middle of the continuum, Knight places Tunstall and Gipps' (1996) typology which describes feedback as either *evaluative*, with implicit or explicit reference to norms, or *descriptive* with reference given to achievement, competence or improvement. At the other, narrower end of the continuum, researchers such as Sadler (1989) define feedback as specific information to close the gap between a person's performance and a particular reference point.

Sadler's definition of feedback means that for feedback to be beneficial, students need to have a concept of the goal or standard, to be able to compare their performance with that goal and adopt relevant actions to close the gap (Clarke, Timperley, & Hattie, 2003). This approach clearly focuses on the learner's interpretation of the feedback and the importance of making the content accessible to students (Higgins, Hartley, & Skelton, 2002; Sadler, 1998).

In educational settings, research has traditionally focused on three external types of feedback: *outcome feedback* (knowledge of results), *corrective feedback* (provision of the correct answers), and *process feedback* (explicit information for adapting study strategies). It is here that the overlap between feedback and assessment becomes particularly apparent, with outcome feedback and corrective feedback typically associated with summative assessments (primarily measuring progress) and process feedback with formative assessment (used to improve teaching and learning and close the learning gap).

Pajares and Graham (1998) asked 8th grade students what sort of feedback they would want from their teachers on a poem they had written. The students wanted honest criticism and constructive feedback that offered guidance, rather than empty praise and encouragement. Higgins et al.'s (2002) study found that tertiary students felt they deserved feedback largely because they appreciated its potential to improve their learning outcomes. Grades were important, but were not enough. Other research has centred on perceptions of the type of feedback received. For example, Maclellan (2001) and Gibbs, Simpson, and Macdonald (2003) found university students differed in their beliefs about the frequency and volume of feedback received. However, despite the perceived value of feedback and its multiple roles in improving student learning outcomes, secondary students' perspectives and conceptions of the definition and purpose of feedback remain under-researched (Higgins et al.).

In summary, a major challenge regarding assessment and feedback is that they need to be understood or used in ways that contribute to the improvement of teaching and learning. Given that students are "active makers and mediators of meaning within a particular learning context" (Higgins et al., 2002, p. 53) and the central role that assessment and feedback play in the education process, we need to develop a greater understanding of students' conceptions of the overall purpose of assessment and feedback and their perceptions of their impact on them.

### 1.3. The present study

This study is largely exploratory because, while textbooks and policy documents aimed at teachers and teacher educators provide accepted definitions about the purpose of assessment and feedback, little is known about what secondary students actually think their purposes are and their perceived impact.

The study was carried out in four New Zealand secondary schools which are required to deliver the national curriculum. New Zealand teachers use observational or informal assessment methods along with a variety of teacher-administered standardised assessment tools. The final three years of secondary school (Years 11–13) are dominated by external qualifications.

#### 1.3.1. Hypotheses

We hypothesised that secondary students would have conceptions in line with Brown's (2004) conceptions of assessment, namely assessment for improvement of teaching and learning, school accountability, student accountability, and assessment is irrelevant. Students' conceptions of assessment and feedback are also likely to centre around their own interests and needs, they are likely to be focused on grades as a mechanism to show achievement, and will expect honest guidance from teachers.

## 2. Method

### 2.1. Participants

Forty-one New Zealand students (Years 9 and 10, which are equivalent to Grades 8 and 9 in other countries) from four large high schools participated in this study. They formed 5 focus groups each comprising 6–10 students. Their participation was part of a wider project looking at students' and teachers' conceptions of assessment and feedback. The schools were co-educational (boys and girls combined) and covered a range of deciles from 1 to 10 (decile ratings are often used as a proxy for socio-economic status, with 1 as the lowest and 10 the highest). The students were selected from a Mathematics or English class (in either Year 9 or 10) by an independent third party in the school.

The students were of a similar age and socio-economic background and represented a range of academic performance levels. Half the students in each focus group knew each other (from their Mathematics or English classes) but they were not necessarily friends.

### 2.1.1. Focus groups

The focus group methodology was chosen because unlike quantitative methods, focus groups are good for exploring perceptions, feelings, motivations and attitudes. Focus groups respect the fact that people are naturally social and influenced by the comments and advice of others, and also allow the researcher the flexibility to probe unexpected issues. If they are well run, focus groups encourage reticent members to speak and lead to a snowballing of ideas (Kitzinger, 1995; Krueger, 1994).

Five 90-min student focus groups were held during school time. The researchers created a friendly environment by greeting the participants and offering them refreshments. The session started with a warm-up activity to introduce the students to each other and set the tone for a relaxed discussion. The researcher (R) then outlined the purpose of focus groups and the project and gave the students (S) time to ask questions. Students were told that the researchers wanted to have a discussion which focused on their ideas, views and experiences of assessment and feedback rather than what their parents or teachers might think. The researchers also explained that the students' responses would be anonymous and would in no way affect their relationship with their teachers or school.

The two authors were present at each focus group. No school personnel were present. As suggested by Krueger (1994), general questions were asked before specific ones and uncued questions were followed with cues to prompt additional discussion.

The focus groups addressed three key aspects of assessment and feedback: definition, purpose, and personal response or perceived personal impact. The guiding questions are given in Table 1. To encourage all students to express their own views rather than conform to those of the group, they were asked to write down their thoughts/notes (two focus groups used their own paper and three focus groups used coloured Post-It®/sticky notes) for each lead/topic question (given in the first row of Table 1) before any discussion began. These notes were collected at the end for textual analysis and triangulation with the transcripts.

To start the discussion with the first two focus groups, students wrote their own notes, then told the group what they had written for each lead question (e.g., their definition of assessment), and discussion was invited. To encourage more student engagement, interaction and discussion amongst the students, the last three focus groups used sticky notes — for a more detailed description of this process see Peterson and Barron (2006). These groups were asked to place their sticky notes on a large sheet of paper on the wall under the column 'Assessment Definition'. As the discussion continued, more sticky notes were added under the columns Purpose and Personal Response for both Assessment and Feedback. Once the sticky notes were presented, discussed, and any misunderstandings clarified, the students organised them into sets that captured their common (and differing) views, and explained their reasoning as they grouped them. This discussion (and the frequency of the comments on the sticky notes) was then used to gauge the organisation and strength of the ideas raised.

### 2.2. Data analysis

The two authors carried out the analysis. They independently read all the transcripts several times to gain an overview of the data. During the readings, notes were made along with possible emerging themes. Three criteria were used

Table 1  
Guiding questions used in the student focus groups in three key areas

Definition	Purpose	Personal response
If you were asked to tell someone what assessment/feedback is, how would you define it? <sup>a</sup>	Why do we have assessment/feedback? <sup>a</sup>	How does assessment/feedback affect your learning? <sup>a</sup>
Under what circumstances does assessment/feedback occur?	Who is assessment/feedback for?	What do you do with assessment/feedback?
		What effect does your grade have on how you feel about assessment?

<sup>a</sup> Lead questions: Students took notes or wrote their opinions on sticky notes before these questions were discussed with the group.

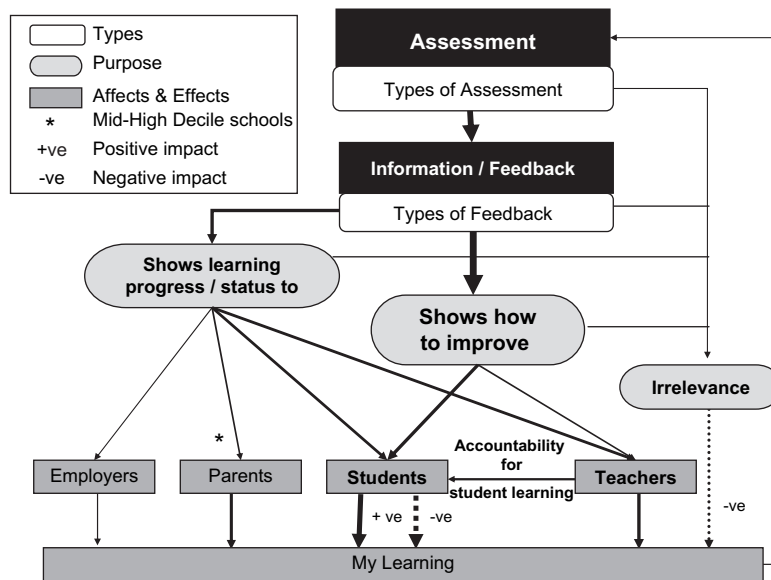


Fig. 1. Summary of students' conceptions of the purpose of assessment and feedback and its impact on their learning.

to identify themes: frequency (number of times the topic was mentioned), level of agreement (the extent to which participants agreed), and intensity (depth of feeling displayed).<sup>1</sup> Notes were then compared between the researchers and with Brown's (2004) categories. Two of Brown's categories (improvement and irrelevance) were adopted. The researchers then worked to clarify, combine, and refine each agreed category.

The transcripts were then re-read, coding relevant sections of text to each category using the qualitative analysis tool N6 (Richards, 2002). After coding each transcript independently, the researchers agreed on further emerging themes and resolved differences together. When new categories were agreed, all the manuscripts were reviewed to look for these.

Once all the data was coded, each category was examined for sub-themes and related themes. This was also done independently and iteratively, going back to the transcripts to look for common ideas that might have been missed by the initial categories. The data were ultimately analysed into broad themes (e.g., perceived responsibility) and sub-themes (responsibility to parents, employers, teachers, students). During these analyses, conclusions were drawn and verified with both authors presenting and defending ideas and supporting or challenging those of the other author. The final interrater agreement was 85%.

### 3. Results and discussion

The study's main findings are summarised in Fig. 1 with the differing size of font and arrows reflecting the importance of each component or idea. The Assessment and Information/Feedback boxes in Fig. 1 indicate that students talked as though assessment and feedback are inextricably linked: the main purpose of assessment was to generate some information or feedback on a student and that information had several functions. Firstly, in keeping with our hypotheses and Brown's (2004) findings, assessment information or feedback primarily helped students (and to lesser extent teachers) know what and how to *improve*. This conception fits well with the egocentric view of assessment found in previous student-based studies (e.g., Brookhart & Bronowicz, 2003). Secondly, rather than holding schools, teachers or themselves accountable (Brown), most students thought that assessment and feedback information *shows learning progress* to parents, teachers, employers, and to the students themselves. As expected, the preferred way of showing this progress was with grades. Finally, like Brown, some students did identify assessment as *irrelevant*. This

<sup>1</sup> To measure intensity, both authors listened to the manuscripts and identified areas where the participants felt strongly about issues. The interrater reliability for intensity was 76%.

conception was more likely if the assessment information or feedback was perceived as unfair, less than totally honest, not important for later life, or if it did not contain a grade. A summary of the main differences between Brown's teachers' conceptions of assessment and our students' conceptions can be found in Table 2 and more detailed evidence for these findings is given below.

### 3.1. Conceptions of assessment

#### 3.1.1. Definition of assessment

It is important to identify what students had in mind when they referred to assessment. According to the students, assessment was dominated by tests in various guises (e.g., class tests, essays, or “a piece of paper with a whole bunch of questions”). The students frequently talked about assessment as a formal event or structured exercise that led to a mark. They made relatively few references to informal assessment such as teacher observation, class discussion with the teacher or peers, or assistance with class work. Peer assessment and self-assessment were rarely mentioned.

#### 3.1.2. Purpose of assessment

*3.1.2.1. Assessment for the improvement of learning.* When students talked about the purpose of assessment, an assessment–feedback–learning loop was evident. That is, assessment was primarily useful because it led to information/feedback, which led to more learning that was subsequently re-assessed, keeping the learning cycle going. Hence assessment, feedback and students' learning were inextricably linked. This was expressed in one group when the students were asked why assessment information was important:

S1: So you know where you're at with your learning and if it's bad, you can push it up, so you improve.

S2: Your results on a test: people say what you can improve on, one section that you could improve on.

S3: It's about what you've learned, and make[s you] study. It's deciding what information might help.

Another student from a different group thought:

S10: Because if you have a test and you get a “Not Achieved”, and then... if it was a good teacher — then you get a little thing telling you what you did good. Then you know what you need to learn and what you need to focus on.

Students did not separate the purpose of assessment and feedback, but rather one flowed into the other. Students realise that assessments can be more than summative tools and that feedback from assessments can be powerful influences on their learning. This finding suggests that student conceptions of the purpose of assessment and feedback largely echo those of the *Assessment Reform Group* (2002), who argue that assessment should be used *for* learning and improvement: “Assessment for learning is the process of seeking and interpreting evidence for use by learners and

Table 2

Comparison between the conceptions of assessment identified by Brown (2004) and the present study

Brown's (2004) conceptions of assessment found in teachers	Present study's conceptions of assessment found in secondary students
Assessment is for the improvement of teaching and learning (e.g., it describes performance, helps inform student learning, informs teaching practice, is trustworthy and valid)	Assessment is for the improvement of student learning and may inform teaching (e.g., assessment information helps me improve, sometimes helps teachers to teach better next year)
Assessment holds students accountable for their learning progress (e.g., assigns grades, checks progress, determines if standards are met)	Assessment does not make students accountable for their learning progress, but it does indicate their learning progress (e.g., shows learning progress to parents, teachers and students)
Assessment is irrelevant (e.g., bad and interferes with learning, ignored, valueless, and inaccurate)	Assessment is irrelevant (e.g., not relevant to my future, is not graded, if the feedback is dishonest or unfair)
Assessment makes schools accountable (e.g., evaluates schools, measures school quality, etc.)	Assessment does not make schools accountable, but it does hold teachers accountable for student learning (e.g., teachers didn't teach me well, teacher doesn't like me)



their teachers to decide where the learners are in their learning, where they need to go and how best to get there” (Assessment Reform Group).

*3.1.2.2. Assessment for improvement of teaching.* Like Brown (2004), students recognised that assessment could be useful for teachers as a report on how well the students were doing (e.g., “Assessment is when a person is tested so that a teacher can find out what you know about a certain topic”). If the teacher had knowledge about how much each student knew then, for example, a differentiated teaching programme could be instituted from that base. One student commented that:

S12: If the assessment were used to allocate students into appropriate learning groups, then the assessment would be useful for the teacher.

However, the students gave little indication that assessment information actually helped teachers teach students differently, or that students themselves directly benefited from this information, although they suggested that other students might benefit if teachers used the assessment information to improve the way they taught the subject the following year.

*3.1.2.3. Lack of student accountability and the impact of assessment.* Although the students understood that assessment could be used to help improve their learning, little was found to indicate that they independently acted on that information. Instead of accepting responsibility for learning, students shifted the responsibility to the teacher by assigning blame or “get[ting] angry”. Several students ascribed their poor grades to the teacher “being mean” or the teacher “doesn’t like me”. Another student said that if they failed, then the teacher had “not taught you enough”. Therefore, unlike Brown’s (2004) study with teachers, none of the students accepted that poor achievement could be a result of their own efforts (or lack thereof).

However, students could not entirely distance themselves from their results which clearly had a personal impact. Low assessment marks can “make you suffer” and “(make) you feel stink”. To avoid feelings of failure, some students indicated that they would try to avoid the subject in the future.

S8: If I got bad in Maths and I looked good in English, I’d just kind of start liking English and Maths really won’t be much of a priority for me.

S9: We just did like measurement, and we did a test on it and then...if you didn’t do too well in it, you know you’d kind of look an idiot ...so you’d probably not bother.

R: So you won’t bother trying?

S9: Yeah ... [especially] when the teacher says you won’t do that measurement again.

In addition, the lack of follow-up on assessments meant that “If you don’t know something, you just don’t worry about it until next year”.

Success on the other hand was often regarded as a proxy for effort (“The hard work and it paid off”). Students could accept success, but only to the extent of feeling happy and better about themselves. Students also measured themselves against their friends, always with themselves as the central reference point — “All you do is go away and compare it with your friends and say oh I’m better than you, you’re worse than me”.

These findings are in keeping with achievement goal theory and motivational research and in particular individuals with performance goals (Ames, 1992; Dweck, 1986; Jagacinski & Nicholls, 1984). People with performance goals seek to demonstrate maximal competence on a task (rather than mastery), they judge success in relationship to their peers and have a strong desire for positive comments from their assessors. They typically associate good performance with feelings of pride and poor performance results in blame, negative affect, de-motivation and avoidance (Jagacinski & Nicholls).

*3.1.2.4. Showing progress: to parents.* The majority of students in our focus groups indicated that their parents were interested in their school performance and felt under pressure to meet their expectations. The presence of parents was felt strongly. Several students commenting that the first thing they thought about when the term ‘assessment’ was mentioned was their parents. Any attempts by the student to obfuscate poor performances were undermined because “Parents know everything”. When asked why, the student replied “Because they look it up on the net” referring to the

school's Internet site which listed assessment dates and report information. For students, a good grade was something that they would tell others about, whereas poor grades were more likely to be hidden or played down. Attempts to hide poor results were not surprising given the consequences — “If you get a bad report you can get punished for it”.

Students in the lowest decile school never referred to their parents. In this school, students felt the pressure and the need to “push oneself”, and to “get higher grades”, but this was not associated with the need to satisfy their parents. Jones (1991) argued that parents of lower decile students often do not have the same experience of schooling that enables them to actively contribute to student learning. While they are interested in the progress their child makes, they do not engage in the discourse that middle class parents use to bolster the chances their children have at school.

*3.1.2.5. Showing progress and abilities: to future employers.* Students also thought that assessment results could inform future employers about their abilities and potentially help avoid a “stink job” (cf., Brookhart & Bronowicz, 2003). This idea was not at the forefront of students' minds, but they were aware of the shadow that assessment cast over their futures.

R: Would you like to tell me what you think about when you think about an assessment?

.....

S6: The future.

R: The future?

S6: ...if you have a good future or a bad future, it's like you really work hard.

R: So your future might depend upon how well you do in this?

S6: Yeah. Sometimes it's hard to get to university. It depends on whether you fail or not.

*3.1.2.6. Assessment is irrelevant.* In keeping with Brown's (2004) work with teachers, some students also believed that assessments were irrelevant and did not serve any useful purpose. One student was particularly adamant, repeatedly saying, “I think it serves no purpose.”

Although comments such as “waste of time” or “waste of ink” were not uncommon, most acknowledged that in reality assessments varied in their usefulness. Unlike Brown (2004), who found that teachers' irrelevance conceptions grouped into three *sub-factors* (assessment is bad, assessments are ignored, and assessment is inaccurate), our students primarily saw assessments as irrelevant for other reasons. Firstly, they saw assessment as irrelevant if they had no future academic aspirations: “You might not need to know if you are going to look for work”. Another marker of irrelevance was the absence of a grade on their work. Most comments reflected a view that without an independent evaluation from the teacher of their worth (as reflected in a grade), the assessment was of limited value. This observation will be discussed in more detail in conceptions of feedback below.

In general, there was an acknowledgement that there were different types of assessment and some were more serious, formal and fair than others. Tests and exams were definitely things that you had to study for whereas, “If it's something that you get at home then you can ring up your friend and say oh what's the answer to this or how did you do it?” There were also assessments where “If you miss something out the teacher will make you fill it in again, but in a test, if you miss it out and you hand it in, they can't do anything about it because that's the final thing”. In the students' minds an assessment was deemed to be fair if you had to complete it by yourself, under controlled conditions, without any assistance or second chance. This conception of fairness differs from tertiary students who reported that traditional assessments (tests and exams) were often unfair because they depended on assessment technique, state of mind and health on the day plus the quality of their notes (Sambell et al., 1997). The contrast between these two groups suggests a conceptual progression whereby secondary school students expect assessment to measure their recall of facts and processes they have been taught, whereas Sambell et al.'s participants wanted opportunities to show their deeper conceptual understanding.

In our secondary school sample, the types of assessments that counted most were the ones that the teachers prepared because they were perceived as important and more honest. Peer-assessments could be dismissed since “You can't assess your friends because they'll just be nice to you and they'll put all this nice stuff down” and therefore could not be depended on. Most students had tried peer assessment and some mentioned self-assessment, but students commented that “Friends don't really count ... because it's what the teacher says” and “It's better to see what someone else has to say about you than what you think about yourself”. Most students also believed that “(Parents) care more about what my teacher would have to say about me, not what I would have to say about me”.



### 3.1.3. *Effects of assessment and students' affect*

Students accepted the place of assessment in school life as a rite of passage (“It’s a part of everyday life”). It was also seen as the teacher’s duty as “It’s the law with schools”. Assessment was accepted because they believed it helped paint a picture of their performance, which was useful for “personal knowledge” as well as for parents and teachers. Assessment was not a black cloud under which student resentment grew. However, not all conceptions of assessment were positive. For some students, poor assessment results led them to feel “stink”, “angry” and could lead to avoiding work. For others, poor assessment results acted as motivators to do better. If assessment results were good, students generally reported being happy, content and often proud.

## 3.2. *Conceptions of feedback*

### 3.2.1. *Definition and purpose of feedback*

The students reported receiving the three most common types of external feedback: (a) “right and wrong answers” and “ticks and crosses” (corrective feedback); (b) reports and grades (outcome feedback); and (c) “constructive criticism”, “tips” or “reminders” (process feedback). However, while students recognised the physical and summative characteristics of feedback and its formative purpose, they reported that formative feedback was not common, especially in Mathematics. Rather significantly, one student noted that while the teacher may point out areas for improvement, they were rarely told *how* to improve.

Students also said that teachers’ comments often masked the truth: “Teachers try to say... positive (things),... they don’t put you down”. They perceived these comments as “warm fuzzies” whereas, in keeping with our hypotheses, what they wanted were honest constructive comments: “If they’re giving you something on paper, they should say this is where you’re going wrong, focus on this.” The students were quite articulate about this:

S15: The most annoying thing is when you get a comment that goes, ‘excellent you did good, try harder next time’. You don’t even know what to try harder on... if it’s a particular part... if it’s vocabulary or something ... you don’t know that.

Although students want honest feedback that helps them improve, many openly admitted they ignored or forgot feedback. The crucial element was a grade.

S14: [I] just really care about the grade, not the comments or anything because at the end of the day the grade gets you passed anyway.

The grades told them “how you are doing” and “how much you’ve learnt” and without this information “you don’t know what you need to work on”. This grade focus may be because the students perceived the grades as clearer and more honest feedback than comments that were “someone’s opinion”, “like kind of a different language”, or “a mass of information”. As one student said:

S15: If you got the grade it would be easier to see, instead of reading ... all the mumbo jumbo, the comments.”

Therefore, teachers face two seemingly contradictory imperatives, namely to give enough information to show students how to improve in a language they can understand, but not too much with the effect of turning them off.

While grades were important and usually the first things students looked for on a piece of work, they were not always required. A distinction was made between assessments that counted (towards the student’s report or qualification) and those that did not.

The attention on the grade was accompanied by a belief that it was the teachers’ duty to provide a mark, as without it “I’d feel like I’d wasted my time”, “Like doing something and trying to do really good and come back and it’s got nothing on it.” Students felt that work not graded was worthless and irrelevant as it had no sense of accomplishment, or without a grade they felt unable to analyse their work for future development. A similar view has been expressed by tertiary students who also saw feedback as something they deserved if they had put in the effort (Higgins et al., 2002).

### 3.2.2. *Effects of feedback and students' affect*

It is clear that students take their feedback personally, whether it is accompanied by a grade or not. Grades are important because they are strongly attached to the individual’s pride and sense of worth as a learner. If the grades were good, the students wanted to “Tell everybody because you’re proud of it”, especially their parents — “I’d want to tell

my mum ... that I'd got a good grade." Grades gave parents visible proof that students were meeting their parents' expectations ("I'm... pressured from parents to sort of do better for their expectations of me"). It was something that came up repeatedly in the middle and high decile focus groups. The students also believed that grades on their reports were more honest, because they were for their parents.

S3: Do you know how we were saying we want to know what we've got and stuff. If they [the teachers] didn't give it [grades] and they just told us, we still wouldn't know.

R: You still wouldn't know how well you'd done?

S2: Yeah.

S5: If you've got it down on a piece of paper, like a report or something..., then you take it home and your parents go 'oh well done' and then that would be the end of it. You want to know what you got. It's like you ...want to know what you need to improve on.

Poor grades were often ignored, "I throw them away". To avoid getting these (and having to do something about it), several students indicated that they only wanted to be given good grades. Their sense of what constitutes a good grade was obtained by comparing their marks with other students. Attainment and success was more likely to be seen as a socially comparative process than an internal process, reflecting the dominance of performance goals rather than mastery goals (Ames, 1992).

Some students also saw grades and feedback as a way of motivating themselves.

S17: Sometimes if you get....bad feedback, then it makes you want to do better as well because you know that you've done something wrong and you want to do it better.

S18: If you did bad in the test and the teacher still gave you a good comment on trying, may be you want to try....you'll try harder.

Unlike the students who rejected comments as "warm fuzzies", students like S18 wanted positive comments. This suggests that in keeping with our hypotheses, students' conceptions of *effective* feedback depend on their interests and needs.

While students wanted feedback to enhance their learning, there was little apparent goal setting or self-regulated learning based on their assessment results and feedback. Thus, our samples of students were failing to complete the feedback loop believed to be so important for enhancing learning (Sadler, 1989).

#### 4. General discussion

This study was the first to specifically investigate secondary students' conceptions of the purpose of assessment and feedback and its perceived impact on them. It is also the first qualitative attempt to verify Brown's (2004) model of teachers' conceptions of assessment with students. We hypothesised that we would find similar conceptions with our secondary student sample to those Brown found with teachers, but our hypotheses were only partially supported. Like Brown, we identified the following two factors: assessment is for improvement, and assessment is irrelevant. Unlike Brown there was no evidence that students thought that assessment should make them or their school accountable. Accountability was only mentioned in terms of students seeing their teachers as accountable for student learning. However, in keeping with our hypotheses, students' conceptions of assessment and feedback did largely centre on their own interests and needs and there was a strong focus on the need or desire for a grade and strong guidance from teachers.

Our pattern of findings has been broadly summarised in Fig. 1 with more details given in Tables 2 and 3. Primarily, students see assessment as having a consequential purpose, with those consequences dependent on the nature of the feedback received. The figure indicates students think the *main* purpose of *assessment* is to provide *feedback* that can be used to help students to *improve*. However, some *types of assessment and feedback* are perceived as *irrelevant*, particularly when the assessment is not an invigilated, graded exam or test and when they are not followed by honest, short and constructive feedback. Another perceived purpose of assessment is to show *student learning progress to teachers, students, parents* and to a lesser extent, *future employers*. The exception to this is in lower decile schools where parents were not mentioned (shown by an asterisk in Fig. 1). These stakeholders, and students' perceptions of whether or not the assessment was relevant, were motivators for *my learning*. The figure also indicates that students see teachers as *accountable* for their learning and, depending on how students perceive and emotionally respond to

Table 3

Students' conceptions of the purpose of assessment and feedback, their effect on students, and situations leading to the conception that assessment and feedback are irrelevant

Purpose of assessment and feedback	Perceived effect on student learning	Situations where assessment and feedback are perceived as irrelevant
Assessment leads to feedback	Feedback is primarily for student improvement	If feedback is unfocused and dishonest or the form of assessment is not formal and invigilated. Little evidence that students used feedback to actively improve their learning
Shows student progress to parents (if from middle and upper decile schools)	Motivator for learning	If the form of assessment was students led rather than teacher led
Shows student ability to employers	Motivator for learning	More research required as no comments were made
Shows teachers how to teach better	Nil ... next year's class might benefit but not us	No immediate benefits to the current class
Acknowledgement of student effort	Motivator to work hard and succeed	De-motivating if no acknowledgement (e.g., if work unmarked or not graded)
Show students where they are at and their progress	Emotional response (good or bad depending on the grade). Students focus on subjects where grades are better	Assessment is dismissed/ignored if the grade is poor or the test is not important

their teachers and feedback, this will have a positive (+) or negative (–) impact on student learning. Ultimately, any learning in the classroom is re-assessed and hence the assessment–feedback–learning cycle continues.

Like Fig. 1, Table 3 lists the main purposes of assessment and feedback identified by the students, but it also summarises *how* students think these purposes impact their learning (*my learning* in Fig. 1) and gives more detail about when assessment and feedback are seen as *irrelevant*. Overall, the table shows that if assessment and feedback are used for their intended purposes (as described by the students), then they act as motivators for learning and improvement. However, if assessment and feedback are perceived as dishonest, not graded, student-led, of no immediate benefit to the student or result in a poor grade, then it is more likely to be perceived as irrelevant.

Together the conceptions of assessment and feedback we identified suggest that if Brown's (2004) questionnaire on teacher's conceptions of assessment is to be relevant to secondary school students, it needs to be expanded to capture the differences outlined in Table 2. In particular, a student questionnaire needs to include items on teachers' accountability to students, the extent to which teachers use assessment to improve their teaching, the influence of parents, and the conditions under which assessment is irrelevant.

Our research findings are also important at a theoretical level. In particular, we have shown that the main conception secondary students have about the purpose of assessment and feedback is not that different from those advocated by the Assessment Reform Group (2002). Both groups think that assessment and feedback are inextricably linked and that assessment should be used for improving learning. It is encouraging that secondary students see the potential benefits of assessment and feedback, in the same way as the Assessment Reform Group, even if the students also believed that assessment and feedback were irrelevant, or simply useful for reporting purposes. What is disappointing is that students rarely reported acting on the assessment and feedback information and they tended to hold the teachers accountable for their poor learning rather than accepting responsibility and acting on it.

There are several other messages from this study of particular relevance to educators.

First, while assessment is meant to be a planned, purposeful activity that is integrated with teaching and learning, secondary students do not always have this holistic view. To maximise student buy-in to the assessment–feedback–learning process, teachers should engage students in a dialogue about the broader purposes of assessments allowing for misconceptions to be identified and discussed (Black & Wiliam, 1998a; Black et al., 2002; Carnell, 2000).

Second, students do not recognise the broad spectrum of assessment types that teachers espouse and use. Assessment is typically seen as a formal event or task, completed by students individually and marked by teachers. Informal assessments (e.g., observation, quizzes), peer and self-assessment are not acknowledged and understood as legitimate assessment forms.

Third, students do not have an overly negative view of assessment. They generally accept that assessment is part of secondary school life and that assessment and feedback are intimately linked with learning.

Fourth, students are clear about the type of feedback they want and believe they need for improvement. They want honest and concise feedback focused on how to bridge the gap between where they are and where they need to be. A challenge for teachers is to provide sufficient information to achieve this goal, but not to overwhelm them with too much information such that they ignore it.

Finally, while students say that feedback from assessment is to help them improve, there were signs that they did not convert this into action. Targeted, task-specific goal setting, which encourages students to reflect and act on feedback, may help address this widely acknowledged problem.

Having identified some of the key conceptions of the purpose of assessment and feedback, more research is needed to track which conceptions group together to affect an individual's learning trajectory. It is likely that students who think that assessment can spot gaps in their learning, that feedback helps them to improve and that studying is important for their future, will adopt a more positive, motivated and self-regulated approach to learning and perform better than students who think that feedback does not tell them the truth or that assessment is irrelevant. If we can identify those students with unproductive conceptions of assessment and feedback, we can take steps to address the conceptions that are known to raise barriers to educational achievement (Elen & Lowyck, 1999; Fransson, 1977). A limitation of this study is that we were unable to clearly track the pattern of comments at this individual level.

While this study has revealed some important findings around students' conceptions of assessment and feedback, further research is needed to see whether these findings are generalisable to other student populations. Longitudinal research is also needed to look at the interaction between conceptions of assessment and feedback, how they change over time to influence individual learning outcomes and how teachers can best foster conceptions that promote better learning.

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